

Application No. 10/614,745

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A sealable wafer carrier for holding semiconductor wafers in a generally horizontal orientation comprising: an enclosure portion and a door, the enclosure portion formed substantially from polycarbonate plastic and including [[having]] at least a top, a bottom, a pair of opposing sides, a back, an open front defining a door frame for receiving the door, [[and]] a plurality of wafer supports in said enclosure, said wafer supports presenting a plurality of slots, each slot adapted to receive a semiconductor wafer, and a kinematic coupling on the bottom of the enclosure portion;

the [[a]] door receivable in the door frame to sealingly close the open front, the door having an exterior surface, an interior surface, and a periphery, the door comprising:

at least one latching mechanism robotically operable from outside the enclosure portion when the door is received in the door frame;

a wafer cushion portion on the interior surface of the door, the wafer cushion portion adapted to engage and cushion the semiconductor wafers when the door is received in the door frame;

wherein the exterior surface of the [[said]] door [[has an outer surface]] comprises a layer formed substantially from a plastic material selected from the group of plastic materials consisting of polyimide, polyether imide, polyamide imide, polyketone, polyetherketone, polyetheretherketone, polyetherketoneketone, polyether sulphone, and polytetrafluoroethylene, and wherein said plastic material layer has a Fire Propagation Index of not greater than 9.0 (m/s^{1/2})(kW/m)^{-2/3}[[;]] so that whereby the outer surface portion is relatively retardant to vertical propagation of fire.

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2. (Currently Amended) The wafer carrier container of claim 1, wherein the layer of said exterior ~~[[outer]]~~ surface ~~portion~~ of said door is formed from polyether imide plastic.

3. (Currently Amended) The wafer carrier container of claim 1, wherein the layer of said exterior ~~[[outer]]~~ surface ~~portion~~ of said door is formed from polyetheretherketone plastic.

4. Cancelled.

5. (Currently Amended) The wafer carrier container of claim 1, wherein the interior surface of the door comprises polycarbonate plastic ~~said outer surface portion comprises a layer of fire retardant plastic over a layer of polycarbonate plastic.~~

6. (Currently Amended) The wafer carrier container of claim 1, wherein said door of said wafer carrier container is made by a process comprising molding the layer of fire retardant plastic over a layer of polycarbonate plastic, so that said fire retardant plastic layer forms the exterior outer surface ~~portion~~ of said door.

7. (Currently Amended) The wafer carrier container of claim 1, wherein said door of said wafer carrier container is made by a process comprising affixing a shield panel made from fire

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retardant plastic to said door with an adhesive, so that said shield panel forms the exterior outer surface portion of said door.

8. (Currently Amended) The wafer carrier container of claim 1, wherein door of said wafer carrier container is made by a process comprising affixing a shield panel to said door with a plurality of fasteners, so that said shield panel forms the exterior outer surface portion of said door.

9-26. Cancelled.

27. (Currently Amended) A method of improving the fire retardancy of a carrier for holding semiconductor wafers in a generally horizontal orientation articles, said carrier comprising an enclosure portion and a door, each made substantially from polycarbonate, the enclosure portion including at least a top, a bottom, a pair of opposing sides, a back, an open front defining a door frame for receiving the door, a plurality of wafer supports in said enclosure, said wafer supports presenting a plurality of slots, each slot adapted to receive a semiconductor wafer, and a kinematic coupling on the bottom of the enclosure portion;

the door receivable in the door frame to sealingly close the open front, the door having an exterior surface, an interior surface, and a periphery, the door comprising:

at least one latching mechanism robotically operable from outside the enclosure portion when the door is received in the door frame;

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a wafer cushion portion on the interior surface of the door, the wafer cushion portion adapted to engage and cushion the semiconductor wafers when the door is received in the door frame; having an outer surface, said enclosure including a first portion formed substantially from polycarbonate plastic, the method comprising overlaying at least a portion of the exterior outer surface of said door first portion with a layer of plastic material having a flame propagation index of not more than $9.0 \text{ (m/s}^{1/2})\text{(kW/m)}^{-2/3}$ so that said layer of plastic material forms at least a portion of the exterior outer surface of the enclosure door.

28. (Original) The method of claim 27, wherein said plastic material is selected from the group consisting of polyimide, polyether imide, polyamide imide, polyketone, polyetherketone, polyetheretherketone, polyetherketoneketone, polyether sulphone, and polytetrafluoroethylene.

29. (Currently Amended) The method of claim 27, further comprising the steps of molding said layer of plastic material as [[into]] a separate shield panel and affixing said shield panel to said door.

30-38 (Cancelled).